

ABSTRACT OF THE INVENTION

An airtight sampling apparatus for effectively and accurately sampling a waste solution including volatile organic compounds (VOC's) from a main waste solution conduit having a first pressure P1, is provided. The airtight sampling apparatus includes (a) a waste solution sampling conduit having a first end and a second end; (b) an input check valve connecting the first end of the waste solution sampling conduit to the main waste solution conduit; (c) an actuatable waste solution containing and discharge cylinder assembly having a first end and a second end connected to the second end of the waste solution sampling conduit; (d) an attachable and removable airtight sample holding container; and (e) a pressure adjustable output valve for coupling to the airtight sample holding container, the pressure adjustable output valve being located between the input check valve and the second end of the waste solution containing and discharge cylinder assembly, thereby enabling effective and accurate withdrawal of waste solutions including volatile organic compounds (VOC's).